

U.S. Antarctic Marine Living Resources Program

2013/2014 Weekly Field Reports

Cape Shirreff, Livingston Island

Volume 2
11 November 2013

Science Report

Seabirds

1. We have opened the bird blind/emergency shelter, and set up the solar panel and weather station.
2. The majority of the penguin colonies still have more than 70% snow coverage. During the earlier part of the week, there were a few noticeably colder days where the temperature fell below -7°C during the day. During those days, most of the gentoos went to sea, returning only in the afternoon. Pair bonds have been established, but only a few have started nest building. To date, no clutches have been initiated.
3. Chinstraps are on regular attendance on colonies. Pair bonds have been established, but only a few have started nest building. To this date, no clutches have been initiated.
4. We have started re-sighting all banded birds. We are monitoring all known-age penguins that were banded here as chicks and have now returned to breed. None of these birds have been seen on eggs yet.
5. Brown skuas are re-establishing pair bonds and have been observed in pairs around Cape Shirreff and at the penguin colonies.
6. An Adelie penguin was seen resting at the East penguin colonies on 10 November.

Pinnipeds

7. Nine female southern elephant seals continue to suckle their pups on Media Luna Beach with an additional two females in the harem without pups. We have tagged 26 weanlings so far this season; this number represents the total number of pups weaned so far this year. Tissue from the flipper tag hole punches was collected on all pups tagged. The tissue will be archived at the Southwest Fisheries Science Center archive for later DNA analysis.
8. We have recorded five tagged fur seals including one adult female. The rest have all been adult or sub-adult males first tagged as pups.



9. We observed the first leopard seal of the season during the phocid census on 8 November. This individual was hauled out on ice offshore and we could not tell if it was tagged. We also counted a total of 17 adult southern elephant seals, 14 adult Weddell seals, three Weddell seal pups, and two adult crabeater seals. The crabeater seals were seen together and appear to be a breeding pair but it is unclear if it is the same pair observed last week.

Weather

10. The weather station is up and running as we bring a cool week to a close. Temperature, wind direction, wind speed, barometric pressure and solar irradiance will be logged every 15 minutes. The mean temperature for the week was -5.8°C , the high temperature was 3.2°C and the low was -8.9°C . Total precipitation was recorded as 0.06 inches; however, the rain cup didn't reflect the several inches of snow that fell, likely due to high winds. Winds this week were predominantly from the west, provided from two different low pressure systems. Mean wind speeds were 14.7 mph. Maximum winds were 54 mph. Sunrise and sunset are now 04:04 and 21:23 and we are gaining about six minutes of sun per day.

Camp

11. This week we completed pre-charging all of the new batteries for the main battery bank. They were installed, all leads cleaned/replaced, and several obsolete wiring systems were removed to reduce un-needed draw. Finally, the battery monitoring unit was re-calibrated. The new system seems to be functioning properly.
12. The main solar panel and wind generator were installed. A faulty switch issue was discovered and resolved for the wind generator. Both systems are operating optimally.
13. The power supply for the HF radio system was replaced this week, including a new battery and a simplified wiring scheme. We hope this will boost our signal clarity for radio communications with Palmer Station.
14. The supply hut has been cleared out and organized. Cans and jars that degraded over winter were removed and shelves cleaned and organized.
15. In addition to melting snow for wash water, we have used one barrel of water thus far and have moved a second barrel into the main hut to thaw.



16. All areas and window/door covers have now been dug out and removed. This week we cleared out and de-iced the drying shed/shower room so that folks can take a shower...and none too soon.

Presented by Doug Krause and Michelle Goh, with assistance from Kevin Pietrzak, McKenzie Mudge, and Trevor Joyce at the Cape Shirreff Field Camp, Livingston Island, South Shetland Islands, Antarctica

